

Amendments to the Claims

Pursuant to revised 37 CFR 1.121, a complete listing of all claims in the application follows along with a parenthetical expression of the status of each claim. No new matter has been added.

1. (Currently Amended) In a fluid/liquid storage tank with a sidewall and a floating roof floating atop the fluid/liquid, an improved grounding system comprising:
 - a reel connected to the sidewall;
 - said reel having a low impedance conductor for lightning related frequencies connected to the floating roof; ~~and~~
 - said conductor comprising a bare braided copper cable;
 - said reel having a take up spool which keeps any slack out of the conductor and maintains a shortest fractional length;
 - wherein an excess length of said conductor is wound around said take up spool thereby shorting together adjacent sections of said conductor wound around said take up spool;
 - and
 - said take up spool having a spring.
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Currently Amended) The improvement of claim 1, wherein the reel further comprises a base having bolts secured to the ~~tank wall~~sidewall.
6. (Currently Amended) The improvement of claim ~~[[4]]~~ 1, wherein the bare braided copper cable further comprises a lug having a bolt secured to the floating roof.
7. (Currently Amended) The improvement of claim 6, wherein ~~the~~an impedance of the lug and bolt, plus the bare braided copper cable plus the reel is about one ohm or less.

8. (Currently Amended) A grounding system for a storage tank having a floating roof, said grounding system comprising:

a wire having an end connected to the floating roof;

said wire having a second end wound around a spool in a reel;

said wire comprising a bare braided copper conductor;

said spool having a take up mechanism to minimize slack in the wire;

said take up mechanism having a spring;

wherein an excess length of said wire is wound around said spool thereby shorting together adjacent sections of said wire wound around said spool;

said reel having a grounded connection to a wall segment of the tank; and

said wire having a low impedance for lightning related frequencies.

9. (Currently Amended) The grounding system of claim 8, wherein the ~~wire~~ bare braided copper conductor further comprises ~~a flat braided copper conductor~~ 480/30 flat braided copper wire.

10. (Canceled)

11. (Currently Amended) The grounding system of claim 9, wherein ~~the~~ a total impedance of the system is about five ohms or less.

12. (Currently Amended) A grounding system for a tank with a floating roof, said grounding system comprising:

means for taking slack out of a bare braided copper cable connected from the floating roof to an upper segment of a tank wall, and thereby maintaining a minimum length;

said means of taking slack out comprising a reel having a take up spool;

said take up spool comprising a spring functioning to constantly pull up on the bare braided copper cable;

wherein an excess length of said bare braided copper cable is wound around said take up spool thereby shorting together adjacent sections of said bare braided copper cable wound around said take up spool; and
said bare braided copper cable having a low impedance for lightning related frequencies.

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Currently Amended) The grounding system of claim ~~45~~12, wherein the system has a total impedance of about five ohms or less.

17. (Currently Amended) The grounding system of claim ~~45~~12, wherein the bare braided copper conductor cable has a bolt connection to the floating roof, and the reel has a base with a bolt connection to the tank wall.

18. (Currently Amended) In a fluid/liquid storage tank with a sidewall and a floating roof floating atop the fluid/liquid, an improved grounding system comprising:

a reel connectable to the sidewall;

said reel having a low impedance conductor for lightning related frequencies

connectable to the floating roof; ~~and~~

said conductor comprising a bare braided copper cable;

said reel having a take up spool which keeps any slack out of the conductor and

maintains a shortest fractional length;

wherein an excess length of said conductor is wound around said take up spool thereby

shorting together adjacent sections of said conductor wound around said take up

spool; and

said take up spool having a spring.

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Currently Amended) The improvement of claim 18, wherein the reel further comprises a base having bolts secured to the ~~tank wall~~sidewall.

23. (Currently Amended) The improvement of claim ~~24~~18, wherein the bare braided copper cable further comprises a lug having a bolt secured to the floating roof.

24. (Currently Amended) The improvement of claim 23, wherein ~~the~~an impedance of the lug and bolt, plus the bare braided copper cable plus the reel is about one ohm or less.

25. (Previously Presented) The apparatus of claim 1 further comprising a plurality of said reels and low impedance conductors connected to the sidewall.

26. (Previously Presented) The apparatus of claim 8 further comprising a plurality of said reels and wires.

27. (Previously Presented) The apparatus of claim 12 further comprising a plurality of said means for taking slack out of a cable.

28. (Previously Presented) The apparatus of claim 18 further comprising a plurality of said reels.

29. (Currently Amended) The improvement of claim 1, ~~wherein the conductor further comprises a bare braided copper cable, and~~ wherein ~~the~~a total impedance of said improvement is about five ohms or less.

30. (Currently Amended) The improvement of claim 18, ~~wherein the conductor further comprises a bare braided copper cable, and~~ wherein ~~the~~a total impedance of the improved grounding system is about five ohms or less.

31. (New) The improvement of claim 1, wherein the bare braided copper cable further comprises 480/30 flat braided copper wire.

32. (New) The grounding system of claim 12, wherein the bare braided copper cable further comprises 480/30 flat braided copper wire.

33. (New) The improvement of claim 18, wherein the bare braided copper cable further comprises 480/30 flat braided copper wire.